



The Resonator

Official Newsletter of the Fair Lawn (NJ) Amateur Radio Club

Volume 10, Number 10

www.FairLawnARC.org

October 2025

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President's Message

Hello all FLARC Members,

Saturday September 20, 2025, was a GREAT DAY for FLARC and our Hamfest. The weather was a little cool in the early morning but, once the sun was up, it turned out to be a sunny warm day. We had 37 sellers and 125 buyers. Breakfast & lunch were served by Judith KC2LTM, Fred W2ABE and Skip KD2BRV – along with some help from other members – and was well received by all who came. I would like to give Fred KR2H a big thank you for his help getting all our donated stuff ready to sell and then manning the FLARC table to help sell it all.

If you really want to mark your calendar, next year's Hamfest is June 6, 2026 – and the rain date of June 13, 2026. These dates have already been approved and listed on the ARRL website.

Our Tech Committee is making progress on the upgrading of our antenna system. Hopefully it will be done before the year is out.

On Sunday October 19, 2025 we will be participating in the Fair Lawn River Road Street Fair. We still need someone to help organize this event. We are planning on doing the same thing we did at Great Fall event. Nothing fancy. So please let me know if you are willing to help us do this. Remember: if it was not for the town there would be NO club.

Please note that our November Kawfee Tawk will begin at 7 PM, with the regular business meeting starting at 7:30 PM. At the November meeting we will be taking floor nominations for any FLARC office for next year.

GREAT READY FOR OUR ANNUAL BLACK FRIDAY AUCTION on Friday November 28, 2025. And our Holiday party and FLARC elections just one-week later on December 5, 2025

Keep an eye out for upcoming contests that the club is going to participate in. Check out our Website and PLEASE READ the groups.io messages for the latest information.

So please think about becoming a more active member and being part of a terrific club! PLEASE reach out to me or anyone on the board if you have an idea or a complaint.

73,

Gene, WO2W

WO2W@ARRL.net

**Remember:
Ham Radio Is a Contact Sport!**

Ham Radio Class Now Forming

The ARC2 Radio Club will be holding
a 2-day in-person Amateur Extra Radio License CRAM class
where you can learn what you need to pass your
50-question exam and earn your upgrade to a
Amateur Extra FCC Amateur Radio License.

*General or Advanced licensees may upgrade to Extra Class.
The test covers some of the more obscure regulations,
specialized operating practices, advanced electronics theory and
radio equipment design.*

Class: 2 days (Saturday and Sunday) Nov. 15-16

Time: 8:00 am to about 5 pm

Location: Fairfield, NJ Red Cross office

209 Fairfield Road, Fairfield, NJ 07004

Class Fee: \$20 (snacks & facility)

Exam Fee: \$15 (payable at exam)

Schedule:

- Pre-Studying is required.
- Class: all day Saturday, 8 am to about 5 pm
- Review: Sunday, 8 am to about 2 pm
- Exam: Sunday, after review

Registration required: *(with full name, address, cell number, call sign)*
Registration closes November 1st or when class reaches full capacity of 20.

To register or to ask questions, email: **NB1LL@ARRL.net**

Instructor: Bill Kelly, NB1LL

(that is a #1 in NB1LL)

ARRL The national association for
AMATEUR RADIO®

Our 2025 Hamfest Sponsors

AF7KB Books

<https://fasttrackham.com/>



<https://ARRL.org>



www.DXEngineering.com • 1-800-777-0703

Kantronics


<https://kantronics.com/>

 **Powerwerx**

<https://powerwerx.com>

We very much appreciate the
Sponsorships and
Door Prize Donations received
from the groups and companies
whose logos are shown above.

End of Summer Solar Battery Box Build

— by NK2Q

I have wanted the capability of operating solar for a while now, and have put it off for about 6 years. When I first looked into it, to me it seemed cost prohibitive, and I wasn't thrilled with having to carry large solar panels to a park, or even to a vacation spot. And some of the roll-up solar film could cost upwards of a thousand dollars.

So, I put it out of my mind; but it never totally left my thoughts. Every time I saw a video of someone using solar, I was intrigued again and again. And that brought me to present day.

The price of portable solar panels and related components has come down quite a bit in the last 6 years. And I found a "back-packable" foldable 100-watt panel on Amazon for less than \$100, made by FlexSolar. So that is where my journey began.



I then needed a good "quiet" solar charge controller, and that required some research. There are many cheap ones out there, but they are also very noisy for radio use. I first looked on the Bioenno site. They have some good quality controllers that they pair with their batteries, and at first, I thought that might be the way to go; but I wanted a different battery than what Bioenno offered.

So back to Google I went, and did more research. I ended up reading great things about a company called Genasun (Sunforge LLC), and found that they are solar controller experts; not just resellers. So, I purchased the Genasun GV-10. I chose the GV-10 because I wanted to charge at least a 30 Ah battery in a relatively short period of time, not just trickle charge the battery. Genasun actually sells many solar controller chargers for various types of batteries and at various amperages.

I ended up selecting a 50 Ah battery, and my brand of choice was Redodo, first because the price was very reasonable. Second, because it was a Bluetooth BMS battery. Third, because of brand reputation. And fourth, because the one I selected seemed to be a perfect fit for the box I had in mind to house everything. Many people use the Apache boxes from Harbor Freight. They are great boxes, and you will find countless videos of people using Apache due to their value for the price point, but I wanted something a little more box-like, and less suitcase like. And I found the Milwaukee Packout Compact toolbox. It was perfect for my liking, and has a comfortable center handle.

To execute the build properly, I watched numerous videos, many of which were from Ham Radio Tube (*Mike, K8MRD*).

Mike does an excellent job of explaining in a concise way how to put together battery boxes of differing sizes. So, I took what I wanted from his experience and library of videos, and designed my own build.



My requirements were as follows:

1. The box has to hold at least a 50 Ah battery.
2. Have an easy carry handle.
3. Have enough flat space for mounting Anderson Power Pole outlets, switches, USB ports, and a couple of meters.
4. I wanted additional space to hold paperwork, and a separate wall-outlet battery charger.

This all came together with the Milwaukee Packout.

I already owned 10- and 12-gauge wire, Anderson Power Poles, stud ring terminals, heat shrink tubing, Velcro tape, nuts and bolts, various crimpers, step drill bits, and etc. But I did have to purchase some component parts

Continued on next page.

Solar Battery Box Build, continued

besides the battery, the box, and the solar charge controller. These consisted of the DROK Digital Multimeter (with a shunt), USB ports, Anderson Power Pole ports, rocker switches, cigarette lighter panels to hold the rocker switches and ports, LED digital 12v display meter, a 60A breaker (which is really just used as an on-off switch), and a 12-port fuse panel. Finally, I had to figure out where I wanted to place it all, and then assemble it.



All in all, it took about a week to source the parts (*all from Amazon*), and close to 6 hours to build and finally test it. It probably would have taken less time, but having never done this before (*and being as methodical as I am*), I tested each and every connection with a multi-meter to make sure every crimp was solid. My biggest fear was that I'd get the entire box together and something might not work.

Then I powered each connection (*one at a time*) with a smaller test battery. So, although it took a little longer, my testing tedium paid off. It all works.

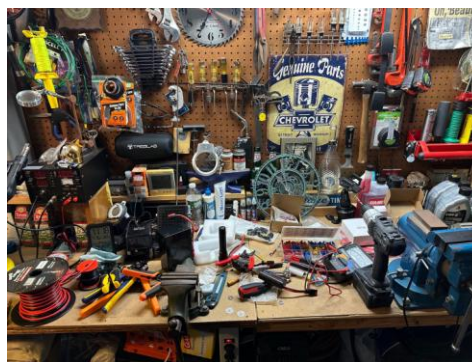
Lastly, I added an NK2Q sticker, also from Amazon.



I can now operate off the grid and power my ham radio, laptop, phone, and etc. With the back-packable Flexsolar 100 watt solar panel, it would take about 8 hours to fully charge a dead battery, but if I parallel another panel, I could almost cut that time in half. Not that I'd have a need to. With my typical duty cycle, 100 watts works fine for me assuming I start out my activation with a fully charged battery; which I always do.

This was a fun project, and I plan to get a lot of use out of it. More pictures below — and just for fun, I have also included a picture of my mess of a work bench after the build was finished, and also a picture of my cleaned work bench.

Always clean up after your projects! — David, NK2Q



2026 Dues will be due soon

New members: only \$20 for your first year ! And if you sign up after October 1st you get next year free.

There are no changes to dues for the upcoming year. Renew now, and let us know what activities or features would make you more active with the club.

Please make checks payable to:
"Fair Lawn Amateur Radio Club"
and send them to:

Fair Lawn ARC
– Attn: Treasurer
10-10 20th Street
Fair Lawn, NJ 07410

Please include a member application form with your \$25 check regardless of your member status. It can be found near the back of this newsletter.



EmComm SIG Updates

[Emergency Communications via Ham Radio]

Amateur radio operators use their training, skills, and equipment to provide communications during emergencies. Hams serve our communities when storms or other disasters damage critical communication infrastructure, including cell towers, and wired and wireless networks. Amateur radio can function completely independently of the internet and phone systems. An amateur radio station can be set up almost anywhere in minutes. Hams can quickly raise a wire antenna in a tree or on a mast, connect it to a radio and power source, and communicate effectively with others.



The Resonator Is Now Archived!

Ever wanted to search for something in *The Resonator*? Maybe a member profile. Perhaps a past Street Fair. Even who participated at Field Day in 2017.

Now you can. *The Resonator* has now been accepted as part of the Digital Library of Amateur Radio and Communications. DLARC is a project of the Internet Archive (the not-for-profit online library best known for *The Wayback Machine*.) DLARC is growing to be a massive online library of the past and present of ham radio and related communications. It is funded by a grant from Amateur Radio Digital Communications.

When you need to find something, go to:
<https://archive.org/details/flarc-resonator>

You can use the search "text contents" field to do a full-text search on all issues or click "Date Published" to see them sorted by publication date.

Get Direct With FLARC!

Here is a direct link to specific club info: just a click away!

<http://apparel.FairLawnARC.org>
<http://auction.FairLawnARC.org>
<http://blog.FairLawnARC.org>
<http://calendar.FairLawnARC.org>
<http://events.FairLawnARC.org>
<http://exams.FairLawnARC.org>
<http://facebook.FairLawnARC.org>
<http://news.FairLawnARC.org>
<http://swap.FairLawnARC.org>
<http://tech.FairLawnARC.org>
<http://youtube.FairLawnARC.org>

<https://groups.io/g/FairLawnARC>



The **FLARC EmComm SIG** is working closely with the NENJ-ARES group (North East NJ) to create an area-wide corps of well prepared hams who can handle emergency communications accurately and efficiently.

Times have changed and we can now use digital message formats as well as voice messaging.

If you would like to learn more about this phase of ham radio, send an email to —

main+owner@NENJ-ARES-EMCOMM.groups.io

or contact Jim N2JLF at N2JLF@card.net on next page.

The Fair Lawn Amateur Radio

Why is FLARC New Jersey's Most Exciting Radio Club?

Annual and Special Events



- Field Day
- Winter Field Day
- World Amateur Radio Day
- Portable Day
- Earth and Environmental Days
- Field Trips
- Club Exchanges
- Special Even
- Public Service Activities
- Public Events
- Ham fests and Auctions
- Foxhunts
- Contests
- Youth Activities and more



There Is Something Every Night At FLARC!

Monday: Near and Far Net

Tuesday: DMR Net and Open House at the clubhouse

Wednesday: ARES/RACES Net

Thursday: Tech Net

Friday: Open House at the clubhouse or *Kawfee Tawk* Speaker Series (Monthly via Zoom)

Weekends: Open House at the clubhouse, POTA and other station activations, Contests, Foxhunts



Special Interest Groups

- Portable Ops (POTA, SOTA, etc.)
- DX: Chase the rare ones
- Digital Voice: DMR and other modes
- FT8: Plus, other WSJT modes
- Satellite: Also, for weather interests
- Monitoring: SWL and other listening
- Contesting
- EMCOMM
- Radio Direction Finding
- Raspberry pi, Arduino



Plus:

- A five-position operating station clubhouse
- An active repeater—W2NPT linked with NJ2BS.
- New antennas on the roof
- Monthly VE testing
- An award-winning newsletter
- Monthly speaker programs
- Educational programs and activities
- Active in-person and social networking
- An extensive video education archive

That is Why FLARC Is the Most Exciting Club Around!

Come join us in-person or via Zoom for more activities, speakers, and projects!

www.fairlawnarc.org



The Club Fair Lawn ARC is the fastest growing ham club around, with five operating positions in a permanent clubhouse. Visitors and guests are always welcome. The club is open every Friday night, except when there is a Business Meeting scheduled, from NLT 6:30 PM. Business meetings are the first Friday of the month at 7:30PM.

2025 Officers, Committees and Assignments

President	Gene Ottenheimer	WO2W
Vice President	Nomar Vizcarrondo	NP4H
Treasurer	Robert Marchini	KD2SOG
Secretary	Jim Cooper	W2JC
Trustee	Judith Shaw	KC2LTM
Trustee	Lowell "Van" VantSlot	W2DLT
Trustee	Noel Pagan	W2MSA
Member Services Health & Welfare	Judith Shaw	KC2LTM
Marketing	Nomar Vizcarrondo Jim Cooper	NP4H W2JC
Program	[open]	
Video/YouTube	Thom Guida	W2NZ
Social Media	Brian Duddy Thom Guida Dave Marotti	N2BTD W2NZ NK2Q
Photographer	Robert Marchini	KD2SOG
Community Relations	Gene Ottenheimer Dave Gotlib	WO2W KD2MOB
Field Day 2026	[open]	
Winter Field Day 2026	[open]	
Hamfest	Gene Ottenheimer	WO2W
Auction	Brian Cirulnick	KD2KLN
Education	[open]	
Youth Outreach	Robert Marchini	KD2SOG
Adult Outreach	Lowell "Van" VantSlot Jim Cooper	W2DLT W2JC
VE Testing Coordinator	Gene Ottenheimer	WO2W
Special Events	James Gallo	KB2FMH
Contests	Lowell Vant Slot	W2DLT
FLARC Historian	Fred Belghaus	KR2H [W2AAB]
Webmaster	Jim Cooper	W2JC
Asst. Webmaster	David Kozinn	K2DBK
Technical Chair	Dave deCoons	WO2X
EmComm	Jim Breheny	N2JLF
RACES/ARES Director	Dave Gotlib	KD2MOB
RACES/ARES Liaison	Steve Wraga	WA2BYX
Newsletter Editor	Jim Cooper	W2JC
Newsletter Publisher	Jim Cooper	W2JC
Club Station Manager	Noel Pagan	W2MSA
Quartermaster	Fred Wawra	W2ABE

Want a Call Sign License Plate?

Amateur Radio (Ham operators) license plates may be purchased for a \$15 fee, for passenger vehicles, but not for commercial vehicles or motorcycles. (Applicants must be licensed by the Federal Communications Commission.)

Call MVC at 609.292.6500 or (toll free in NJ) 888.486.3339 to request an application.

The club has applications from time to time. If you would like an application, visit the "contact us" page, and we'll get one out to you.. Or find the form and detailed instructions at:

<https://www.state.nj.us/mvc/pdf/vehicles/SP-23.pdf>



Letters:

A feature of *The Resonator*

The editor has received a lot of nice notes, letters and comments about this newsletter and the club in general. We have not published them in the past but going forward we will at least try.

Here are the grounds rules:

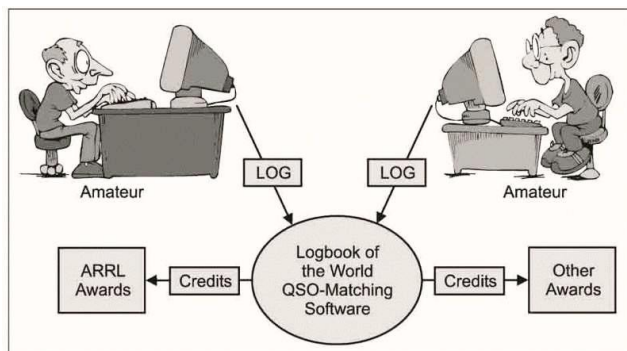
- Please keep all comments as brief and succinct as possible.
- No personal attacks.
- No political rants.
- No comments promoting violence, racism, religious intolerance, vulgarity, obscenity, or other such discourteous behavior.
- The Editor reserves the right to exclude any comments that violate our guidelines and may subject the writer to further disciplinary action by the club.

A QSL card is the final courtesy of an amateur radio contact.

https://en.wikipedia.org/wiki/QSL_card

INCOMING QSL Bureau -- if you have been making on-the-air contacts, you might very well have a package of exciting QSL cards from around the world waiting for you at the incoming QSL Bureau. If you previously received cards from them, check to see if you have any "credits" left by going to https://www.njdx.org/?page_id=869. If you never contacted them, they probably have cards for you! Go to this page -- https://www.njdx.org/?page_id=25 and get some 'credits' to cover the postage for mailing your cards to you.

To learn about the W2 Bureau, https://www.njdx.org/?page_id=30



Those who upload logs to Logbook of the World become eligible to redeem confirmation credits for awards. LoTW wants and needs *all* logs. Uploading is free, so send your logs today!

SIG Group Membership

Here is an update on the Special Interest Groups... many groups have increased in size during the last month. About 45% of all members have joined at least one group.

<u>SIG Name</u>	<u>Leader</u>
Contesting	W2DLT
Digital Voice	N2AAM
EmComm	N2JLF
Monitoring	WX2R
DX	W2JC
FT8	W2JC
Satellites	N2AAM
Portable Ops	W2MSA
Radio Astronomy	WX2R
Raspberry pi	[open]
Direction Finding	W2KBF

Follow FLARC ON THE WEB

Facebook: <http://facebook.FairLawnARC.org>

Twitter: @FairLawnARC

Youtube: <http://youtube.FairLawnARC.org>

Website: <http://FairLawnARC.org>

Sign up for a group... or ...
why not start one?

Contact webmaster@FairLawnARC.org
if you would like to start a new
Special Interest Group.

The Clubhouse Is Open FOUR Fridays In October!!

Date	Clubhouse Status
Oct. 3	CLOSED – Business Meeting at Fair Lawn Senior Center
Oct. 10	OPEN
Oct. 17	OPEN
Oct. 24	OPEN
Oct. 31	OPEN



Pop-Up Tuesdays are in-person at the club.



HAMSPEAK**VOLTAGE:**

A measure of the force of electricity, analogous to water pressure.

AMPERAGE:

A measure of the amount of current flowing, similar to a small diameter hose or a large diameter hose.

RESISTANCE:

This is measured on OHMS and is like having a water valve partway open or a blockage in the pipe.

OHM'S LAW:

Voltage (V), Amperage (I) and Resistance(R) are all related by a formula called "Ohm's Law" — which can be written three different ways:

$$V = I \times R \quad R = V/I \quad I = V/R$$

If you know two of the values, you can calculate the third value.

VTVM:

vacuum tube voltmeter which is more sensitive through the use of a vacuum tube in the circuit. This type of meter is more forgiving to measurement errors.

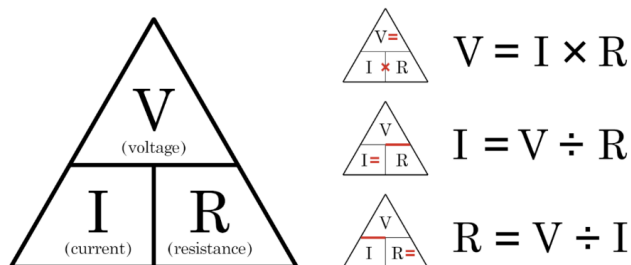
ANALOG METER:

This type of meter uses a needle pointer to indicate measurements and provides measurement trends.

DIGITAL METER:

Most common due to price, size and ruggedness since it has no moving parts. It uses numbers to provide measurement indications.

Fred Wawra, W2ABE, 73.

Ohm's Law Triangle**FLARC September 13, 2025
VE Testing Results**

Gene W02W reports the following results:

Name	Call	License Earned
There were two candidates but neither passed.		
Hope they come back and try again.		

Testing for next month will be at the Fair Lawn Recreation Center.

**Eleven Special Interest Groups [SIGs]
Already Formed: Any Others?**

Club interest continues to grow in the SIGs.

Another recently formed SIG is for those interested in Raspberry Pi and Arduino projects, but now includes DoItYourself (DIY)/Makers kit building, 3D printing and similar topics.

A list of all of the current SIGs is shown on page 9.

Other possible groups, from the member survey, include:

- Radio Propagation
- Antennas and how they work
- Ham radio software
- Technical assistance to club members

Anyone interested in leading any of these groups...?

Please contact webmaster@FairLawnARC.org

Vast Archive of FLARC Activities and Info

Members are reminded that we have a large archive of YouTube videos of our previous many years of Kawfee Tawk™ presentations, which cover many aspects of ham radio. Our mostly unsung hero club videographer, Thom W2NZ, has spent thousands of hours of his own time creating really professional quality videos of these 167 presentations. Visit our club YouTube page and you will see all of them listed on the main page, at <http://youtube.FairLawnARC.org>

Another large and rather unused archive is that of our seven years of the club newsletter, The Resonator. They provide a nice historical record of the many activities of FLARC over the years, as well as lots of useful info about ham radio and electronics. The entire archive is at <http://newsletters.FairLawnARC.org>

And don't forget the FILES area of our groups.io website, where useful and important info is saved: <https://fairlawnarc.groups.io/g/main/files>

Renew Your ARRL Dues... Send Free Money to FLARC!

The ARRL has a great program to support affiliated clubs in that it sends part of your dues back to the club if you renew through the club.

So... when you get your ARRL renewal, send both your check and your renewal application to our trusty Treasurer, who will take care of getting your renewal to Newington and a fat check for \$5.00 back to FLARC.

Nothing can be simpler...
you just have to remember!!

Print and use the
form on page 18
of this issue of

The Resonator



Club Apparel — Get Them While They're **RED**!

Club apparel is always in vogue. Red is always "in" and your club friends all have them... you *want* a shirt or jacket for the next FLARC event! Great for Field Day!

Don't forget.... they're easy to order.

Go to www.hamthreads.com

or visit <http://apparel.FairLawnARC.org>

Check out the item selection that is posted on the **FLARC website (with pictures and prices)**. Order the shirts or other items you want with either the regular FLARC logo or the still-cool 60th anniversary logo. Note: **RED** is the primary and preferred club standard shirt color.

And why not WEAR your nice red shirt when you come to the club, especially for meetings and events.



It's easy to spot FLARC members
wearing their red club shirts !

Ham Radio Is Contagious And It Won't Make You Sick!!

2024 FLARC Net On The W2NPT Repeater:

Near and Far Net • Mondays at 8PM

W2NPT Repeater and EchoLink

Special Note: As non-profit, the IRS now requires that we disclose annually the use of paid lobbyists to our members and indicate approximately what percentage of their dues goes toward that. 0% of your dues payment will be used by the club to directly pay a lobbyist firm to lobby on behalf of all our members regarding pending legislation that impacts our hobby.



NEWHAMS.INFO

Training, information, and encouragement for new amateur radio operators.

<https://newhams.info/>

BEQUEATHS AND DONATIONS

Planned gifts usually imply the family donation of amateur equipment to the club when someone has become a Silent Key. But it can be more. Club members might consider making a gift through a will or trust; gifts that help provide lifetime income to the club. Consult with your lawyer, estate planner or tax advisor if you feel such a gift is worthy.

About The Club

The Resonator is published monthly and is the official (and only) newsletter of The Fair Lawn Amateur Radio Club. FLARC was established in 1956 and has met continuously since inception. **The club is sponsored by the Borough of Fair Lawn.** The club meets every Friday, except when a Business Meeting is scheduled, at 6PM at the club station in The Fair Lawn Community Center, 10-10 20th Street, Fair Lawn, NJ. Business meetings are the first Friday of the month at 7:30 PM at the Fair Lawn Senior Center, and on Zoom.

Visitors **ARE ALWAYS** welcome at our meetings.

FLARC operates the W2NPT repeater (145.470- PL 167.9) located high atop the Community Center. The analog repeater is open to all amateurs for use without restrictions.

The club has nearly two hundred paid members.
Dues are currently \$25 per year;
\$20 for new members.

For more information, please see our website, at
<http://membership.FairLawnARC.org>

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Thanks!
for your
Support!!

This is YOUR club.... Be a part of it !!



**FAIR LAWN'S
COMMUNICATIONS CENTER!**

With Our Antennas On The Roof!



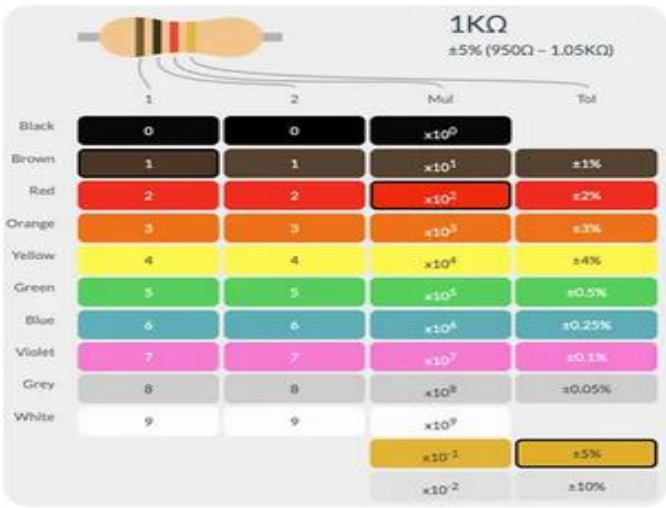
Theoretics Demystified

This time we are going to step back from real technical stuff and go to the basics, for those just getting started with electronics and some of the test equipment needed to 'look inside' the circuitry involved.

The first piece of test equipment a beginner needs is a meter which measures voltage, current and resistance. With it you can check power supplies, check for proper voltages and current in circuits and with the resistance 'ohm meter' ranges on the meter you can verify that resistors have the proper resistance according to their markings.

Most resistors have their design resistance marked using a color code system. Below is an example of the resistor color code chart. If you plan to do a lot of work with electronics, it is a great idea to memorize the colors and the numbers that they represent. This chart applies to discrete resistors with wire leads. The small surface mount resistors are usually marked with a number or sometimes not at all. That makes it doubly important to have a good meter on hand. Most meters today are digital, but there are a number of analog meters (meaning a meter with a face and a moving pointer) that many still prefer over the digital types. Analog meters are the best for seeing changes in voltage, current or resistance in an ongoing pattern. Again, see the chart below.

4-band Resistor Color Code Chart



	1	2	Mul	Tol
Black	0	0	$\times 10^0$	
Brown	1	1	$\times 10^1$	$\pm 1\%$
Red	2	2	$\times 10^2$	$\pm 2\%$
Orange	3	3	$\times 10^3$	$\pm 3\%$
Yellow	4	4	$\times 10^4$	$\pm 4\%$
Green	5	5	$\times 10^5$	$\pm 0.5\%$
Blue	6	6	$\times 10^6$	$\pm 0.25\%$
Violet	7	7	$\times 10^7$	$\pm 0.1\%$
Grey	8	8	$\times 10^8$	$\pm 0.05\%$
White	9	9	$\times 10^9$	
			$\times 10^{-1}$	$\pm 5\%$
			$\times 10^{-2}$	$\pm 10\%$

Example: 1K Ω $\pm 5\%$ (950 Ω - 1.05K Ω)

The most common type for general electronics

Band Reading Guide:

- 1st Band: First significant digit
- 2nd Band: Second significant digit
- 3rd Band: Multiplier
- 4th Band: Tolerance

Large high-power resistors usually have their resistance and sometimes the wattage printed directly on them. Aside from resistance, meters measure AC and DC voltages, and most measure at least the lower ranges of current encountered in most electronic equipment and radios.

More on test equipment next time.

Fred Wawra, W2ABE, 73.

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Contest Corner



As we have done for many years in the past (look at the awards on the wall next to Position 2 at the club), W2NPT took part in the New Jersey QSO Party at the end of September.

First, we should all commend and appreciate VAN W2DLT who drove an hour and a half very EARLY in the morning, from his home in NE PA, to open the club and prepare for the start of the contest at 10:00 EDT — and then drove another hour and a half back home in the late evening, after we closed at 20:30.

Next are the other eight members who were part of the event during the day —

W2JC, KB2BEE, N2NVE, KC2ORX, KD2BRV, WI2W, KE2FWN and NP4H (in the order they signed in...)

We had two stations (Positions 1 and 4) running pretty much all the time.

Position 2 was making contacts on FT8, but they don't count for the NJQP because the needed exchange info can't be exchanged in the FT8 format. But we made some good DX contacts.

While the club HAS won several awards in previous years in the NJQP, our primary goal is to introduce new members (and others) to the fun and techniques of contesting, as well as using the top notch equipment we have at the club.



The Jersey Devil – mascot for NJQP

Here are some of the statistics and results of our NJQP effort —

W2NPT Score - 7,704 Points

Contest: NJ QSOPARTY				
Band	Mode	QSOs	Pts	Mult
7	LSB	47	24	18
14	CW	35	70	15
14	USB	37	13	3
Total	Both	119	107	36

Score: 7,704
1 Mult = 3.3 Q's

Statistics for QSOPARTY - 2025-0...

Operator	CW 14	LSB 7	USB 14	Tot	Accum
KD2BRV		7	8	15	15
KE2FWN			13	13	28
KR2H			8	8	36
NP4H	35		1	36	72
W2DLT		14	7	21	93
W2JC		1		1	94
W2NPT		2		2	96
WI2W		23		23	119
Total	35	47	37	119	119



States/Sections/HQ - 29 mults worked of 63 possible

Worked	Expected	Spotted	Spotted (Dbl Mult)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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Officially, we spent 7 hours and 40 minutes operating in the contest. Our time was somewhat limited because the club had our Annual Hamfest that morning so members came to the club station after the Hamfest closed up ... and the Community Center closes at 21:00 so we had to be out by then.

Special mention to new member Doug KE2FWN, who had no contest experience but learned fast and made more SSB contacts than anyone else!

— reported by Jim W2JC



ELECTRONIC DUES PAYMENTS ARE NOW AVAILABLE!



**FLARC dues, new and renewal — and even donations! —
can now be made on-line ...**

Until permanent arrangements can be made, several fiduciaries of the Fair Lawn Amateur Radio Club have graciously agreed to forward electronic payments to the Club's bank account.

Payments can be made using Zelle account.

zelle

- Log into your Zelle account
- Use the following phone number as the recipient: 201-240-9317
- In the notes section, include your Call Sign and what year(s) the dues are for

Once complete, you may – for added assurance - send a screenshot to treasurer@FairLawnARC.org

– please be sure to redact any personal information –
(e.g. bank account number, balance, etc.)

For both new and renewal, please complete the Membership Application form at
<https://FairLawnARC.com/membership.pdf>

with your current info and either give it to a club officer
or mail it to the address on the form.

For additional information on club membership, visit
<http://membership.FairLawnARC.org>

Visit the club website at <http://FairLawnARC.org> for info about the club,
club activities, club history and our club 2-meter repeater.

For a PDF form that can be filled in on-line, then printed and mailed with check, [CLICK HERE](#)

Or you can print this page, fill it in and mail to the address shown at the bottom.



Fair Lawn Amateur Radio Club

*Fair Lawn Recreation and Community Center
10-10 20th Street
Fair Lawn, N.J. 07410*

MEMBERSHIP/RENEWAL FORM

Name _____ Call _____
Address _____ PO Box _____ Ste./Apt # _____
City _____ State _____ Zip _____
Roster Published Phone # _____ Unpublished Phone # _____
Roster Published EMAIL _____ License class: _____

Check all that apply ARRL Member ? RACES Member ? ARES Member ? CERT ? VE ?

Additional Family Members (In same household) --

Name _____ Call _____

Name _____ Call _____

Introductory and Student Membership \$ 20 \$ _____
(Students under the age of 18 eligible for student membership)
(Introductory membership open to new members
or not a member in last 7 yrs)

Associate Membership * (No Fee)

* Open to Fair Lawn Residents Only. No voting rights or other privileges.

Renewal of Current Membership \$ 25 \$ _____

Three Year Renewal Incentive \$ 65 \$ _____

(Single memberships only, family memberships excluded)

Additional Family Members # _____ at \$ 5 each \$ _____

Life Membership \$ 625 \$ _____

Senior Life Membership (65 yrs. of age or over) \$ 250 \$ _____

Equipment Fund Donation, above regular membership dues \$ _____

Total submitted \$ _____

_____ Date _____

I hereby acknowledge the By laws and rules and regulations of the club and will abide by them as amended

Please Note: Memberships are NOT Pro-Rated. Membership is from Jan 1st to Dec. 31st of any given year unless documented otherwise.

Please make your dues check payable to the "Fair Lawn Amateur Radio Club" and remit to the following address:

**Fair Lawn ARC
– Attn: Treasurer
10-10 20th Street
Fair Lawn, NJ 07410**

Complete this form for NEW or RENEWAL of ARRL membership
and give to FLARC Treasurer [David Gotlib KD2MOB] with your payment check.



ARRL
The National Association for
Amateur Radio®

Membership Application

☐ New ☐ Renew ☐ Previous Member ☐ Unlicensed

Name _____ Call Sign _____

Address _____

City _____ State _____ ZIP _____

Email _____ Phone _____

Date of Birth ____ / ____ / ____

My Family Member is Joining or Renewing: (\$12 per member)

Name _____ Call Sign _____

Name _____ Call Sign _____

☐ Please note my new address ☐ I do not want my name and address made available for non-ARRL related mailings

Your Annual Membership Dues*

Circle Your Choice (rates effective Jan. 1, 2024)

	1 Year	3 Years
Standard membership	\$59	\$174
Family (same membership exp. date and address)	\$12	\$36
Student (must be under age 26)	\$30	
Blind (requires one-time statement of legal blindness)	\$12	\$36

Add-on ARRL Subscriptions

QST, ARRL's membership journal for active radio amateurs.

☐ 1 Year \$25* ☐ 3 Years \$75*

On the Air, For beginner-to-intermediate-level radio amateurs.

☐ 1 Year \$25* ☐ 3 Years \$75*

Member Benefits

Your membership supports benefits, services, and programs that keep you active and on the air.

Membership Includes:

- Access to four digital magazines and archives (*QST*, *On the Air*, *QEX*, & *NCJ*)
- Unlimited courses through the ARRL Learning Center (learn.arrl.org)
- Logbook of The World®, contests, and award programs

...and more!

*A print subscription for *QST* and/or *On the Air* requires an ARRL membership. Dues and subscription rates are subject to change without notice and are non-refundable

Payment Information

\$ _____ Total Charge to: ☐ Visa ☐ MasterCard ☐ AmEx ☐ Discover ☐ Check Enclosed

Card Number _____ Expiration Date _____

Card Holder's Signature _____

Toll Free (US) 1-888-277-5289 or 860-594-0200 • ARRL, 225 Main St., Newington, CT 06111-1400
membership@arrl.org • www.arrl.org/join

CLUB
form rev 1/24

October 2025 FLARC Business Meeting

Meeting Summary for FLARC Monthly meeting

October 3, 2025 07:00 PM Eastern Time

Quick recap

The meeting began with informal conversation before transitioning to a presentation on SDR Amateur Radio and Meshastic, a mesh network technology for emergency communications. The club reviewed financial updates, discussed officer nominations for 2026, and covered various upcoming events including the Hamfest results and repeater system improvements. The group also addressed future meetings and events, including the annual auction and holiday party, while reminding members about important dates and opportunities for camaraderie.

Next steps

- Dave WO2X to link the 2-meter repeater to the 442.7 repeater on the Armstrong Tower in Alpine to improve coverage
- Dave WO2X to update the repeater information in repeaterbooks.com
- Dave WO2X to work with Paul W2IP regarding the Echolink connection for the linked repeaters
- Brian KD2KLN to lead the annual auction on November 28th
- Volunteers needed to help with the refreshment stand at the annual auction
- Chris KE2NJ to give a presentation on POTA in Ireland, with slides, at the November meeting
- Volunteers needed to coordinate the River Road Street Fair on October 19th
- Dave WO2X and the tech committee to test cables and prepare for antenna work on Tower 2 after the ARISS contact
- Dave WO2X to schedule the tower climber after November 1st to install the 6 and 10 meter antenna and new 2 meter antenna
- Members to attend the November 7th meeting for nominations for 2026 officers
- Members to attend the December 5th meeting for elections and the holiday party

Summary

SDR Amateur Radio Project Presentation

The meeting began with informal conversation before transitioning to a scheduled Kawfee Tawk™ presentation. Jim N2JLF introduced Steve N3LRZ, who was invited to give a talk on the SDR (Software Defined Radio) Amateur Radio project. Steve explained that he had initially met Jim while commuting. The presentation was set to cover the Meshtastic project.

Continued on next page.

October 2025 FLARC Business Meeting, cont'd.

Meshtastic: Emergency Mesh Network

Steve N3LRZ presented an overview of Meshtastic, a mesh network technology similar to APRS but operating on the 915MHz band, which allows unlicensed transmission. He demonstrated how Meshtastic nodes can communicate via Bluetooth from a phone or directly through a keyboard-equipped device, with messages being encrypted and relayed between nodes within a range of up to 300 miles through a maximum of 7 hops. Steve N3LRZ explained that Meshtastic is particularly useful for emergency communications as a backup when primary methods like cell phones and radios fail, and highlighted its affordability, with nodes costing around \$30 to build or purchase. The ability to legally encrypt messages can be important when supporting agencies such as American Red Cross, which often deals with personal medical information.

Meshtastic Communication Encryption Methods

Steve N3LRZ explained the different methods of sending messages in Meshtastic, including public channels, encrypted private channels, and direct messages. He described how 256-bit encryption ensures secure communication, with encryption and decryption happening on the end devices. The 902MHz to 928MHz band is an authorized amateur radio band, but it is secondarily shared with other services including "Part 15" service which has severe power limitations. Part 15 users are permitted to use encryption, while amateur use is not. Steve N3LRZ discussed the limitations of using the 915 MHz band for amateur radio operations, noting that it locks out encryption and may degrade the purpose of secure communication.

Solar Mesh Network Emergency Device

Steve N3LRZ demonstrated a solar-powered mesh network device that can send text messages without relying on cell towers, using Bluetooth and spread-spectrum FM technology. He explained that the device, which costs around \$80, can be used for emergency communications and supplements existing amateur radio and GMRS systems, though it does not replace them. Steve N3LRZ showed how the Meshtastic app works on both iOS and Android devices, allowing users to send encrypted messages over a local mesh network with a power range of 1 watt and 130 milliwatt transmission power.

Club Updates and Project Planning

The business meeting began with the Pledge of Allegiance. The minutes from the previous meeting were reviewed and approved with corrections. The treasurer reported the current bank balance, an increase of \$245 from the previous month, and mentioned upcoming membership renewals. The youth outreach project for a contact with the International Space Station was discussed, with the contact date set for October 6th. The Hamfest was reported to have had 37 vendors and 125 attendees, with a good net profit from equipment sales and attendee fees.

Continued on next page.

October 2025 FLARC Business Meeting, cont'd.

2026 Officer Nominations Presented

Van W2DLT, on behalf of the nominating committee, presented the slate of proposed officers for 2026, including:

Nomar	NP4H	as President,
Gene	WO2W	as Vice President,
Jim	W2JC	as Secretary, and
Bob	N2SU	as Treasurer.

Noel W2MSA & Van W2DLT will remain trustees, with Judith leaving the position after three years. The nominating committee reported that two members expressed interest in running for the open Trustee position: Skip KD2BRV and Karl W2KBF. Karl W2KBF then withdrew his bid for trustee.

Nominations from the floor will be accepted at the November meeting¹, with voting and officer changes to take place at the December holiday party.

Club Updates: Events and Repeater Plans

The club discussed upcoming events, including a Fair Lawn street fair on October 19th where we need a volunteer to coordinate setup and activities.

Dave WO2X reported on antenna work planned for Tower 2 and announced plans to link the 2 meter repeater to the Alpine repeater (442.7 MHz) for improved coverage, which he will begin next week. Dave WO2X is the owner of the Alpine repeater equipment, the antenna for which is located at the 450 foot level of the famous Alpine Tower. The club also discussed updating repeater information in various directories, with Dave WO2X confirming he will work with Paul W2IP regarding the Echolink connection and linking, and WO2X will coordinate updates to repeaterbooks.com.

Club Events and Auction Planning

The club discussed upcoming events, including the annual auction on November 28th and the December meeting on December 5th, when elections for 2026 officers will be held.

President WO2W announced a holiday party at the December 5th meeting and mentioned that the auction will be conducted manually with paper and pencil, returning to a more traditional format. The group also shared information about the Great ShakeOut emergency response test on October 16th and a similar emergency preparedness test, which this year will include a CW operating event, organized by the ARES group on October 20th.

Finally, Van W2DLT reminded members to gather at Ray's restaurant after the meeting for camaraderie and pizza.

There were 24 members present in person, and 10 members in the Zoom Room.

Continued on next page.

October 2025 FLARC Business Meeting, cont'd.

¹ For those considering nominating (or seconding) someone for a Board position in the December election, the 'official' descriptions of the five Board positions (from the ByLaws) are presented below.

Election to the Council shall be by Ballot of the Members in good standing, present at annual meetings. A plurality of votes cast shall be required to elect. Vacancies occurring in the Council shall be filled, until the next annual election, by vote of the remaining members of the Council.

[Note: plurality means "the most votes" though not necessarily the majority of votes.]

A candidate for office of President, Vice President, Treasurer or Secretary shall be an active member in terms of participating and attendance for a period of no less than two years to be considered for Office.

Section 4.2 Duties of President

(1)Presiding Officer: The President or, in the absence of the President, the Vice-President shall preside over all meetings of the Association and the Council.

(2)Appointing Committees: The President shall appoint all committees of the Association and of the Council, unless it is specially provided or ordered otherwise.

(3)General Supervision: The President shall exercise a general supervision over all of the affairs of the Association and shall have primary responsibility for coordinating with local, state, federal officials and with the American Radio Relay League (ARRL) regarding Association business and emergency services.

(4)Ex-Officio Member of Committees: The President shall be a member, ex officio, of all committees. In the absence of the President, the Vice President may also serve.

Section 4.3 Duties of Vice President

In the absence or disability of the President, the Vice President shall perform all duties of the President, and in so acting shall have all powers of, and be subject to all restrictions on, the President.

Section 4.4 Duties of Secretary

The Secretary shall keep a complete record of all proceedings and correspondence of the Association and Council. The Secretary shall send notices of meetings by EMAIL to members of the Association or Council as required. ^{2 3}

³ By informal agreement in September 2025, the Secretary will process new and renewal applications to make necessary updates to the club roster, to invite new members to join the club's *groups.io* group (where most club email business and important files reside), and to invite new members to the club's *Slack* channels (where informal, real-time discussions are held).

Any funds accompanying such applications will be forwarded to the Treasurer.

Continued on next page.

October 2025 FLARC Business Meeting, cont'd.

Section 4.5 Duties of Treasurer

The Treasurer shall keep the books and accounts of the Association and shall perform any other duties usually assigned to a Treasurer. The Treasurer shall give Bond, if required by the Council. The Treasurer shall make payments only for bills properly approved by the Council. The Treasurer shall co-sign with the President or Vice President all checks drawn on the accounts of the Association. The Treasurer shall furnish to each of the three Trustees, quarterly at the end of February, May, August and November, a "line item" summary of all transactions during those previous three months. This summary shall be provided prior to the business meeting of the following month (March, June, September and December). The Treasurer may delegate a limited portion of Treasurer duties for a limited time, to another member of the Association in the absence or incapacity of the Treasurer. The limited delegation of duties of Treasurer shall be approved by the Council. The Treasurer shall maintain a database of members in good standing containing the names and addresses of each member of the Association, along with the date and manner of termination of such membership and shall perform all other duties usually appertaining to the Office of Treasurer.²

² By informal agreement in September 2025, the Secretary will maintain the roster of paid members, in order to have an accurate email list for club announcements and notices. The current roster will be available to members in the FILES section of the club's *groups.io* web page.

Section 4.6 Duties of Trustees

The Trustees shall be responsible for review of property and financial accountability, enforcement of these bylaws and assisting the President in his duties regarding liaison with state, local and federal officials regarding Association business and emergency services, and shall fill in and assist other officers above as necessary for the good of the Association.

One shall not be consecutively elected for a second three (3) year term. [as Trustee]

Meeting minutes summary generated by Zoom AI, with extensive editing by Club Secretary W2JC.

